

Korean middle school teachers' self-efficacy: International comparison study using TALIS 2018¹⁾

Dongyup Lee | Director, Office of Teacher Policy Research

Summary

■ Issue

Teachers' self-efficacy is known to have very large, direct and indirect influences on educational achievement. Teachers with high level of self-efficacy perceive their teaching work as an important and valuable work, experience a sense of personal fulfillment when they think they have positive impact on the students' learning, and let students participate in a democratic way when setting their learning goals. Also, in order to head towards a desirable direction, they choose challenging and specific goals and do not give up in the midst of difficult situations.

■ Analysis

In TALIS 2013, the results show that the percentage of South Korean middle school teachers with a positive perception of self-efficacy is relatively lower than that of other countries. The level of South Korean middle school teachers' self-efficacy shows statistically significant increases in TALIS 2018 compared to TALIS 2013, but they are still lower than the OECD average. Considering the effects of teachers' self-efficacy on educational achievement, it is necessary to continuously search for various ways to improve.

■ Policy implication

- Enhancing teachers' professional autonomy
- Designing and operating professionalism development activities for teachers involving the teachers' experience and practices
- Strengthening the connection between theory and practices in teacher education and initial preparation

1) This Brief reorganized some of the contents from "A Study on the International Comparison of Teachers, Principals, and Teaching and Learning: Results from TALIS 2018 (Lee et al., 2019)," which was published by Korean Educational Development Institute.

1. Introduction

- Teachers' self-efficacy is their own judgement or beliefs about their various ability (instruction, student engagement, classroom management, etc.) that are needed to handle the tasks given to teachers. Teachers with high level of self-efficacy perceive their teaching work as an important and valuable work, experience a sense of personal fulfillment when they think they have positive impact on the students' learning, and let students participate in a democratic way when setting their learning goals. Also, in order to head towards a desirable direction, they choose challenging and specific goals and do not give up in the midst of difficult situations.
- In TALIS 2018, teachers' self-efficacy is measured in the following three domains: efficacy in instruction, efficacy in student engagement, efficacy in classroom management. The questions implemented to measure teachers' self-efficacy in the three domains are shown in Table 1.

〈Table 1〉 Questionnaires on teachers' self-efficacy

Classification	Questions	
Teachers' self-efficacy	34. In your teaching, to what extent can you do the following?	
	Efficacy in instruction	c) Craft good questions for students j) Use a variety of assessment strategies k) Provide an alternative explanation, for example, when students are confused l) Vary instructional strategies in my classroom
	Efficacy in student engagement	a) Get students to believe they can do well in school work b) Help students value learning e) Motivate students who show low interest in school work g) Help students think critically
	Efficacy in classroom management	d) Control disruptive behavior in the classroom f) Make my expectations about student behavior clear h) Get students to follow classroom rules i) Calm a student who is disruptive or noisy
	Scale of four ("not at all", "to some extent", "quite a bit", "a lot")	

Source: <http://www.oecd.org/education/school/TALIS-2018-MS-Teacher-Questionnaire-ENG.pdf> was reorganized.

2. Outline of TALIS 2018 survey

- The OECD Teaching and Learning International Survey (TALIS) is the first international comparison survey that focus on teachers' working conditions and educational environment within schools. It is introduced to help the participating countries review and develop policy that creates conditions for effective school education.
- So far, TALIS 2008, TALIS 2013, and TALIS 2018 are completed.

- TALIS 2018 is joined by about 15,000 schools (primary, lower secondary, and higher secondary) and over 260,000 teachers from 48 countries, and surveys perception of teachers and principals on various topics (teachers' job satisfaction and motivation, teacher education and initial preparation, teacher feedback and professional development, teacher self-efficacy, teachers' instructional practices, school climate, innovation, diversity, and equity, etc.).

TALIS 2018 Participants

- OECD Countries & Economies (a total of 31) : Canada (Alberta), Austria, Belgium, Chile, Colombia, Czech Republic, Denmark, United Kingdom (England), Estonia, Finland, France, Hungary, Iceland, Israel, Italy, Japan, Korea, Latvia, Lithuania, Mexico, Netherlands, New Zealand, Norway, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Turkey, United States
- Non-OECD Countries & Economies (a total of 17): Brazil, Bulgaria, Buenos Aires (Argentina), Croatia, Cyprus, Georgia, Kazakhstan, Malta, Romania, Russian Federation, Saudi Arabia, Shanghai(China), Singapore, South Africa, Chinese Taipei, United Arab Emirates, Viet Nam

- For Korean data submission, Korean Educational Development Institute randomly selected 200 schools at each level of elementary and middle school, and 200 principals and 4,000 teachers from those schools, and conducted a survey that show response rates of 87% and above.

※ Note

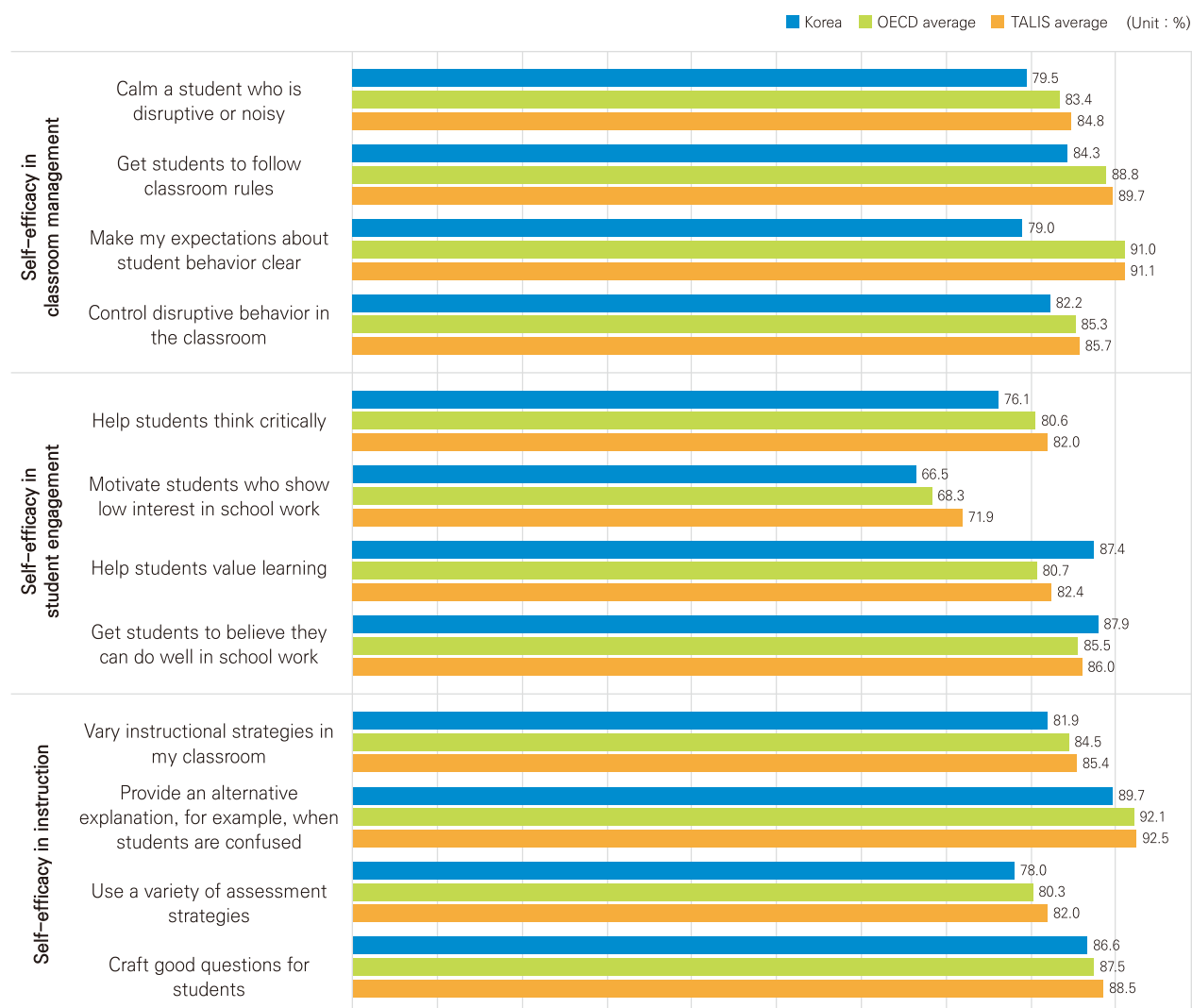
- This paper shares the results of survey conducted for middle school teachers. TALIS 2018 offers survey for primary (elementary school), lower secondary (middle school), and higher secondary educational institutions (high school) according to the participants' choices, but requires a mandatory participation at the lower secondary educational level. Thus, it can be said that the key results of TALIS 2018 is the analysis of lower secondary educational level.
- OECD average: The average of OECD countries & economies (a total of 31)
TALIS average: The average of OECD countries & economies (a total of 31) and non-OECD countries & economies (a total of 17)

3. Analysis of teachers' self-efficacy

3.1. Findings from TALIS 2018 analysis

- In respect to the questions that ask middle school teachers to self-evaluate their abilities related to instruction, student engagement, and classroom management, the percentages of the positive responses such as "quite a bit", and "a lot" are shown in Figure 1.
- In the case of teachers' efficacy in student engagement, Korea shows a higher level than the OECD average and the TALIS average in "getting students to believe they can do well in school work" (87.9%), and "helping students value learning" (87.4%).

- However, for other 10 questions, Korea has somewhat lower percentages of having positive responses than the OECD average and the TALIS average. Especially, the level of Korean teachers' efficacy in classroom management is low as evidenced in that "making my expectations about student behavior clear" (79.0%) is about 10%p lower than the OECD average (91.0%) and the TALIS average (91.1%).



[Figure 1] Teachers' self-efficacy

3.1. International comparison of teachers' self-efficacy and its changes

3.2.1. Efficacy in instruction

- In the case of teachers' efficacy in instruction, Korea is placed in the middle when it is lined up with the comparison group according to their positive response rates. Korean teachers' positive response rate for their efficacy in instruction has increased from TALIS 2013 to TALIS 2018 by at least 8.3%p and at the greatest 11.4%p.

- Especially, the greatest increase of 11.4%p is shown for “use a variety of assessment strategies”, which is a relatively large increase compared to the comparison group. Finland, Japan, and Singapore have increases in the positive response rates by 7.8%p, 5.7%p, and 4.0%p, respectively, but the degrees of increase are still lower than that of Korea. On the other hand, despite of the fact that Australia, Sweden, United Kingdom, and Canada do not have statistically significant changes, their levels of teachers’ efficacy in “use a variety of assessment strategies” are shown to be higher than Korea in TALIS 2018.

〈Table 2〉 International comparison of change in teachers’ self-efficacy in instruction

(Unit : %)

Classification		Craft good questions for students			Use a variety of assessment strategies			Provide an alternative explanation, for example, when students are confused		
		TALIS 2013 (a)	TALIS 2018 (b)	Changes (b-a)	TALIS 2013 (a)	TALIS 2018 (b)	Changes (b-a)	TALIS 2013 (a)	TALIS 2018 (b)	Changes (b-a)
Korea		77.4 (0.9)	86.6 (0.8)	9.1* (1.2)	66.6 (1.2)	78.0 (1.0)	11.4* (1.5)	81.4 (0.9)	89.7 (0.6)	8.3* (1.1)
Comparison Group	Japan	42.8 (1.0)	50.8 (0.9)	8.1* (1.3)	26.7 (0.8)	32.4 (0.8)	5.7* (1.1)	54.2 (0.8)	62.9 (0.8)	8.7* (1.2)
	Singapore	81.2 (0.7)	85.2 (0.6)	4.0* (0.9)	71.6 (0.9)	75.6 (0.7)	4.0* (1.1)	88.5 (0.6)	90.7 (0.5)	2.2* (0.8)
	Australia	86.0 (0.8)	86.5 (0.7)	0.5 (1.1)	86.3 (1.1)	84.7 (0.8)	-1.7 (1.3)	94.0 (0.7)	95.6 (0.4)	1.6 (0.8)
	Finland	90.1 (0.5)	90.9 (0.7)	0.8 (0.9)	64.2 (1.1)	72.0 (0.9)	7.8* (1.4)	76.9 (0.9)	79.6 (0.9)	2.7* (1.2)
	Sweden	82.0 (0.8)	82.6 (0.8)	0.6 (1.1)	81.4 (0.8)	83.2 (0.9)	1.7 (1.2)	95.1 (0.5)	93.0 (0.7)	-2.1* (0.8)
	U.K (England)	89.8 (0.9)	92.0 (0.6)	2.2* (1.1)	90.2 (0.7)	88.6 (0.7)	-1.6 (1.0)	90.2 (0.7)	95.8 (0.5)	-0.9 (0.6)
	France	93.8 (0.5)	77.6 (0.9)	-16.2* (1.0)	88.3 (0.7)	74.4 (0.9)	-13.9* (1.1)	90.2 (0.7)	89.0 (0.7)	-9.5* (0.8)
	United States	-	85.8 (1.7)	-	-	80.0 (1.4)	-	-	92.4 (1.3)	-
	Canada (Alberta)	84.1 (1.0)	88.4 (1.4)	4.2 (1.7)	86.1 (0.9)	88.2 (1.6)	2.2 (1.8)	94.3 (0.6)	96.1 (0.8)	1.8 (1.0)

* $p < .05$

** The question ‘Vary instructional strategies in my classroom’ was only included in TALIS 2018, thus it was excluded in this analysis. Source: Online material – OECD (2019). Chapter 2 Teaching and learning for the future, 〈Table 1.2.23 Change in teachers’ self-efficacy from 2013 to 2018〉 was reorganized (<https://doi.org/10.1787/888933933045>).

3.2.2. Efficacy in student engagement

- In the case of teachers’ efficacy in student engagement, Korean teachers’ positive response rate for “helping students value learning” (87.4%) is the highest among the members. Especially, Korean teachers’ positive response rates in “getting students to believe they can do well in school work” and “helping students value learning” have statistically significant increases of more than 9%p, comparing the results from TALIS 2013 and TALIS 2018.
- Considering the changes in the comparison group, Korea has shown enormous increase. Measuring the lower secondary teachers’ efficacy in student engagement, other countries in the comparison group, except Japan and Singapore, do not show any differences in their positive response rates between TALIS 2013 and TALIS 2018, and France has shown a large decrease.

- On the other hand, Korean teachers' positive response rate for "helping students think critically" has shown statistically significant increase of 12.5%p, from 63.6% in 2013 to 76.1% in 2018. However, it is not considered to be a high level compared to the comparison group.

〈Table 3〉 International comparison of change in teachers' self-efficacy in student engagement

(Unit : %)

Classification		Get students to believe they can do well in school work			Help students value learning			Motivate students who show low interest in school work			Help students think critically		
		TALIS 2013 (a)	TALIS 2018 (b)	Changes (b-a)	TALIS 2013 (a)	TALIS 2018 (b)	Changes (b-a)	TALIS 2013 (a)	TALIS 2018 (b)	Changes (b-a)	TALIS 2013 (a)	TALIS 2018 (b)	Changes (b-a)
Korea		78.7 (1.0)	87.9 (0.7)	9.3* (1.2)	78.3 (0.9)	87.4 (0.8)	9.1* (1.2)	59.9 (1.0)	66.5 (1.0)	6.6* (1.5)	63.6 (1.1)	76.1 (1.1)	12.5* (1.5)
Comparison Group	Japan	17.6 (0.7)	24.1 (0.8)	6.5* (1.1)	26.0 (0.9)	33.9 (0.8)	7.9* (1.2)	21.9 (0.8)	30.6 (0.8)	8.7* (1.1)	15.6 (0.6)	24.5 (0.8)	8.9* (1.0)
	Singapore	83.9 (0.7)	85.9 (0.7)	2.1* (1.0)	81.5 (0.8)	84.4 (0.6)	2.9* (1.0)	72.1 (0.9)	73.3 (0.8)	81.4 (0.9)	74.9 (0.7)	76.7 (0.8)	1.8 (1.1)
	Australia	86.9 (1.1)	88.2 (0.7)	1.3 (1.3)	81.3 (1.4)	83.4 (0.7)	2.1 (1.5)	65.8 (1.3)	68.4 (1.1)	81.4 (0.9)	78.4 (1.3)	80.8 (0.9)	2.3 (1.6)
	Finland	83.9 (0.8)	84.9 (0.8)	0.9 (1.1)	77.3 (0.8)	79.4 (1.1)	2.1 (1.4)	60.4 (1.1)	60.7 (1.2)	81.4 (0.9)	72.8 (1.0)	75.4 (1.1)	2.6 (1.5)
	Sweden	93.9 (0.5)	92.7 (0.5)	-1.2 (0.7)	76.6 (1.0)	74.0 (1.2)	-2.6 (1.6)	64.1 (1.0)	62.9 (1.2)	81.4 (0.9)	75.1 (0.9)	75.9 (1.1)	0.8 (1.4)
	U.K (England)	93.0 (0.6)	90.2 (0.8)	-2.8* (1.0)	87.0 (0.8)	85.0 (0.9)	-2.0 (1.2)	75.7 (0.9)	73.4 (1.2)	-1.6 (1.0)	81.4 (1.0)	81.3 (0.9)	-0.1 (1.4)
	France	95.2 (0.5)	71.8 (0.9)	-23.4* (1.0)	87.1 (0.7)	65.2 (1.0)	-21.8* (1.2)	76.6 (0.9)	47.0 (1.2)	-1.6 (1.0)	88.7 (0.7)	71.9 (0.9)	-16.8* (1.1)
	United States	-	82.8 (2.3)	-	-	73.9 (3.2)	-	-	64.4 (1.4)	-	-	79.5 (2.8)	-
	Canada (Alberta)	87.0 (0.9)	88.2 (1.2)	1.2 (1.6)	79.2 (1.1)	82.2 (1.7)	3.0 (2.0)	60.6 (1.3)	64.0 (2.0)	3.4 (2.3)	82.2 (1.0)	87.2 (1.3)	5.0 (1.7)

* $p < .05$

Source: Online material – OECD (2019). Chapter 2 Teaching and learning for the future, 〈Table 1.2.23 Change in teachers' self-efficacy from 2013 to 2018〉 was reorganized (<https://doi.org/10.1787/888933933045>).

3.2.3. Efficacy in classroom management

- In the case of teachers' efficacy in classroom management, Korean teachers' positive response rates for the four questions are not at a high level in respect to those of the comparison group. Especially, Korea's positive response rate for "making my expectations about student behavior clear" (79.0%) is the second lowest, next to Japan (59.9%). Also, in respect to the comparison group, Korea's positive response rate for "getting students to follow classroom rules" (84.3%) is in low rank, next to Japan (61.9%).
- However, comparing the results of TALIS 2018 to those of TALIS 2013, Korea has a trend of constant increases, from at least 3.8% to the greatest 8.5%. Unlike this, there is a trend of decrease in teachers' efficacy in classroom management of many countries in the comparison group except Japan and Singapore.

〈Table 4〉 International Comparison of Change in Teachers' Self-Efficacy in Classroom Management

(Unit : %)

Classification		Control disruptive behavior in the classroom			Make my expectations about student behavior clear			Get students to follow classroom rules			Calm a student who is disruptive or noisy		
		TALIS 2013 (a)	TALIS 2018 (b)	Changes (b-a)	TALIS 2013 (a)	TALIS 2018 (b)	Changes (b-a)	TALIS 2013 (a)	TALIS 2018 (b)	Changes (b-a)	TALIS 2013 (a)	TALIS 2018 (b)	Changes (b-a)
Korea		76.3 (1.1)	82.2 (0.8)	5.9* (1.3)	70.5 (1.1)	79.0 (1.0)	8.5* (1.5)	80.5 (1.0)	84.3 (0.7)	3.8* (1.2)	73.1 (1.1)	79.5 (0.8)	6.3* (1.4)
Comparison Group	Japan	52.7 (1.0)	60.0 (0.9)	7.2* (1.3)	53.0 (1.0)	59.9 (0.9)	6.9* (1.3)	48.8 (1.1)	61.9 (1.0)	13.1* (1.5)	49.9 (1.1)	59.7 (1.1)	9.8* (1.5)
	Singapore	79.5 (0.7)	80.1 (0.7)	0.6 (1.0)	89.0 (0.6)	91.9 (0.5)	2.9* (0.7)	83.5 (0.6)	87.1 (0.6)	3.6* (0.9)	75.3 (0.7)	79.1 (0.7)	3.8* (1.0)
	Australia	86.7 (0.7)	82.4 (1.1)	-4.3* (1.3)	93.4 (0.8)	93.8 (0.6)	0.4 (1.0)	89.4 (0.9)	89.7 (0.7)	0.3 (1.1)	83.6 (1.1)	81.4 (0.9)	-2.2 (1.4)
	Finland	86.3 (0.8)	82.6 (0.9)	-3.7* (1.2)	92.7 (0.5)	90.0 (0.7)	-2.7* (0.9)	86.6 (0.8)	85.4 (0.8)	-1.3 (1.1)	77.1 (0.9)	76.1 (0.9)	-1.0 (1.3)
	Sweden	84.9 (0.8)	81.4 (0.8)	-3.6* (1.1)	90.6 (0.6)	89.8 (0.7)	-0.8 (0.9)	86.5 (0.7)	85.6 (0.8)	-0.9 (1.1)	82.7 (0.8)	79.6 (0.9)	-3.2* (1.2)
	U.K (England)	88.7 (0.8)	86.5 (0.8)	-2.2 (1.2)	95.6 (0.5)	95.4 (0.5)	-0.3 (0.7)	93.3 (0.6)	92.8 (0.6)	-0.5 (0.8)	86.3 (0.7)	84.2 (0.8)	-2.1* (1.1)
	France	94.6 (0.5)	73.5 (0.9)	-21.2* (1.0)	97.7 (0.3)	90.0 (0.5)	-7.8* (0.6)	98.2 (0.3)	87.2 (0.8)	-11.0* (0.8)	94.9 (0.5)	76.1 (0.9)	-18.7* (1.0)
	United States	-	83.7 (1.0)	-	-	92.6 (0.8)	-	-	88.4 (1.8)	-	-	79.5 (1.4)	-
	Canada (Alberta)	86.9 (0.9)	87.2 (2.0)	0.3 (2.2)	95.4 (0.5)	94.8 (0.9)	-0.6 (1.0)	91.1 (0.9)	90.3 (1.9)	-0.8 (2.1)	84.7 (1.0)	84.7 (1.8)	0.0 (2.0)

* $p < .05$

Source: Online material – OECD (2019). Chapter 2 Teaching and learning for the future, 〈Table 1.2.23 Change in teachers' self-efficacy from 2013 to 2018〉 was reorganized (<https://doi.org/10.1787/888933933045>)

4. Policy implication

- Comparing the results of TALIS 2013 and TALIS 2018, it is promising that Korean middle school teachers' positive response rates for their self-efficacy are constantly increasing, but they are still below the OECD average. Considering the effects of teachers' self-efficacy on educational achievement, it is necessary to continuously search for various ways to improve.

4.1. Enhancing teachers' professional autonomy

- Self-efficacy is a belief about one's ability to solve problems in a specific situation. In addition to knowledge acquisition of specific field or genre, self-efficacy is earned through the following processes such as establishing practical strategies by redesigning the knowledge in order to solve the problem in a specific context, experiencing that the aforementioned strategy efficiently works, and getting positive and productive feedback through experiences of success or failure.
- As mentioned, one needs to remember that teachers' self-efficacy is generated in an environment where autonomy is promoted in such a way that schools and teachers look for solutions to solve problems on their own.

- Teachers are not passive beings who mechanically offer educational curriculum, but active beings who are flexible in coordinating educational activities according to students' needs and class' dynamics. When teachers act as autonomous performers with high professionalism, teachers may have self-efficacy that actively respond to various needs and problems that they face in specific class situations. Therefore, by systemically enhancing school autonomy, it is important for teachers to perform their duties on the basis of the professional autonomy.

4.2. Designing and operating professionalism development activities involving the teachers' experience and practices

- Although Korean teachers participate in various professional development activities and programs, they do not feel a high level of self-efficacy in their instruction and classroom management work.
- These results suggest the needs of systematic review and self-examination on how the current teacher professionalism development activities are provided and to what extent or what effect they have. In other words, one needs to pay attention to what teachers actually experience through the professionalism development activities, rather than focusing on how much they participated in certain types of the activities.
- Teachers' professionalism is developed in the process of exploring the necessary strategies in real instruction and classroom management situations. In other words, in addition to understanding the professional contents, teachers' professionalism is developed by practicing/experimenting the strategy, which is established on the basis of the understanding, in real classroom setting.
- In order for the professionalism development activities to have a positive impact on teachers' self-efficacy in a practical way, it is necessary to redesign and operate professionalism development activities involving the teachers' experiences and practices.

4.3. Strengthening the connection between theory and practices in teacher education and initial preparation

- It is essential to seek ways to raise the level of teachers' self-efficacy in teacher education and initial preparation. In addition to pre-service teachers' requirement of having extensive knowledge of the subject materials and education in general, they need to have a longer period of field experiences according to the systematic guidance within the real school setting. This is based on the perspective that teaching is a difficult activity that requires a high level of delicacy.
- When the connection between theory and practices is extended by expanding the training period of pre-service teachers, it may reduce mistakes of pre-service teachers at the beginning of their career, raise the possibility of having experiences of success, rather than failure, when they go teaching since they may have a higher level of self-efficacy that is attained through various prior experiences, and create a virtuous circular structure by having a function of raising their self-efficacy.